



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/672,722

09/26/2003

Timothy S. Dyer

2003-0048-01

9419

7590

01/31/2006

William Cray  
C/o Cymer, Inc.  
Legal Dept.  
17075 Thornmint Court  
San Diego, CA 92127

EXAMINER

VANNUCCI, JAMES

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 01/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/672,722

Applicant(s)

DYER ET AL.

Examiner

Jim Vannucci

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2 and 11-67 is/are allowed.
- 6) ☒ Claim(s) 3-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Prosecution on the merits of this application is reopened on claims 3-10 which are considered unpatentable for the reasons indicated below.

Applicant is advised that the Notice of Allowance mailed November 14, 2005 is vacated. If the issue fee has already been paid, applicant may request a refund or request that the fee be credited to a deposit account. However, applicant may wait until the application is either found allowable or held abandoned. If allowed, upon receipt of a new Notice of Allowance, applicant may request that the previously submitted issue fee be applied. If abandoned, applicant may request refund or credit to a specified Deposit Account.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bragin et al.(6,466,599) in view of Sukhman et al.(5,982,803).

Claim 3, figure 7 of Bragin discloses an anode(56) and an up stream fairing(58) each composed of electrically conductive material. The discharge receiving portion(46) is not anodized.

Sukhman discloses anodizing an electrode(col. 3, lines 39-42) in a gas laser device to optimize the laser operating parameters(col. 3, lines 8-17).

Claim 4, the anode and the up stream fairing disclosed in figure 7 of Bragin is constructed as one piece.

Claims 5-6, the anode and the up stream fairing disclosed in figure 7 of Bragin are expose to the laser gas. The complete electrode disclosed in Sukhman is anodized(col. 3, lines 39-42).

Claims 7-10, Sukhman discloses selecting the thickness of the anodized layer on the discharge footprint of the electrode to obtain a desired impedance(col. 8, lines 28-33 and 38-39) and erosion resistance results from the selected anodizing material.

It would have been obvious to one of ordinary skill in the art at the time of the invention to anodize the anode disclosed in Bragin to optimize the laser operating parameters as disclosed in Sukhman.

### ***Allowable Subject Matter***

3. Claims 1-2 and 11-67 are allowed.
4. The following is a statement of reasons for the indication of allowable subject matter.

The following limitations are primarily responsible for distinguishing these claims over the prior art.

Regarding claim 1, the limitations concerning the crown in traverse cross section having the shape of the upper half of a canted ellipse rotated in the pre-ionizer direction;

Art Unit: 2828

regarding claim 2, the limitations concerning an asymmetric discharge side of the anode blade and the top portion beveled away from the asymmetric discharge side of the anode; regarding claims 11-36, the limitation concerning the preformed reef having generally uniform pore size and distribution as recited in claim 11; regarding claims 37-40, the limitations concerning a gas discharge electrode discharge region pre-formed reef formed by forming a first anodization layer, removing the first layer and forming a second anodization layer as recited in claim 37; and regarding claims 41-67, the limitations concerning forming a reef template and growing a porous layer of insulating material for an elongated gas discharge electrode as recited in claim 41.

Proper motivation could not be found in the prior art to combine references disclosing these limitations with the references disclosing the other limitations recited in these claims.

### ***Correspondence***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Jim Vannucci whose phone number is (571) 272-1820.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center whose telephone number is (703) 308-0956.

Papers related to Technology Center 2800 applications only may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The faxing of such

Art Unit: 2828

papers must conform with the notice published in the Official Gazette, 1096 OG 30

(November 15, 1989). The Technology Center Fax Center number is (703) 872-9306.



James Vannucci